Quarter Million Pound Support for Golf Green Research

The Royal and Ancient Golf Club of St. Andrews has pledged support totaling £250,000 for research on golf green turf at the Sports Turf Research Institute at Bingley over the next five years.

The research programme includes a major project on irrigation, construction and fertilizer nutrition of golf green turf and a minor project on the nutrient requirements of fine-leaved bent and fescue grasses and greens.

The results of the research should be of considerable benefit to all golf courses, and will hopefully result in a return to faster, firmer and truer putting surfaces.

Over-watering, says the R&A, has probably been one of the main causes of the deterioration of British golf greens. Club golfers often demand a holding surface. Because Clubs have invested in an irrigation system there is an almost compelling desire to use it, even when watering is not really required.

However, over-watering cannot be isolated from the effects of different media used in the construction of golf greens, such as sands and soils, with their varying water-holding capacity.

In turn, green construction cannot be considered separately from the efforts of fertilizer nutrition with its consequences for root growth and distribution.

Over-fertilizing produces a restricted root system with limited access to moisture in the rootzone.

The project will examine the relationship between irrigation, golf green construction and fertilizer nutrition with a view to providing recommendations for irrigation and fertilizer requirements of greens.

It is now generally accepted that the invasion of fine turf by the annual meadow-grass (Poa annua) is enhanced by high fertility levels in soils. This is especially true for soil phosphate concentrations. Because of this, greenkeepers are encouraged to maintain a low phosphate status in golf green soils. However, it is important that information is obtained on the likely effect of low nutrient levels on the desired fine-leaved species of fine turf.

A 5-year experiment is to be undertaken at Bingley to study the phosphate and potassium nutrition of the bent and fescue species commonly sown on golf greens. This will produce information on the relative abilities of these species to take up soil phosphate and potassium together with the effects on wear tolerance and disease resistance of varying soil nutrient levels.

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